

Thomasia glabripetala (Sterculiaceae), a new species from south-west Western Australia

S.J. Patrick

Western Australian Herbarium, Department of Conservation and Land Management,
PO Box 104, Como, Western Australia 6152

Abstract

Patrick, S.J. *Thomasia glabripetala* (Sterculiaceae), a new species from south-west Western Australia. Nuytsia 9(1): 119-122 (1993). A new species of *Thomasia* (Sterculiaceae) is described and illustrated, namely *Thomasia glabripetala* S.J. Patrick, endemic to the Avon Botanical District of the South-West Botanical Province of Western Australia. This is a declared rare species which, until recently, has been confused with *Thomasia montana* Steudel.

Introduction

This species was first collected in 1966 when it was identified as *Thomasia montana* Steudel. A survey for *Thomasia montana* in 1983 resulted in the discovery of more populations of the then undescribed *T. glabripetala*, but none of *T. montana* which had originally been collected in the York area (Patrick 1984). It was not until 1986, when a population of the latter was discovered, that comparison of fresh flowers of both species highlighted some of the differing characters that were not readily evident in herbarium specimens (Hopper *et al.* 1990)

Taxonomy

Thomasia glabripetala S.J. Patrick, sp. nov. (Figure 1)

T. montanae affinis sed differt floribus majoribus; calyce planiore, minus inciso; petalis longioribus, appressa ad calycem, margine†glabro; staminodiis plerumque brevioribus, triangularibus; ovario 4- v.5-locularibus.

Typus: York area [precise locality withheld], Western Australia, 10 October 1991, S.J. Patrick 901 (holo: PERTH; iso: CANB, K).

Shrub to 120 cm high; young stems with dense, brown stellate hairs. *Stipules* paired, leaf-like, reniform or lobed, 6-16 mm long, stellate hairy on both surfaces. *Leaves* alternate; petiole 4-9 mm long; lamina elliptic or oblong, 15-35 x 7-18 mm, somewhat wrinkled, both surfaces green with scattered stiff

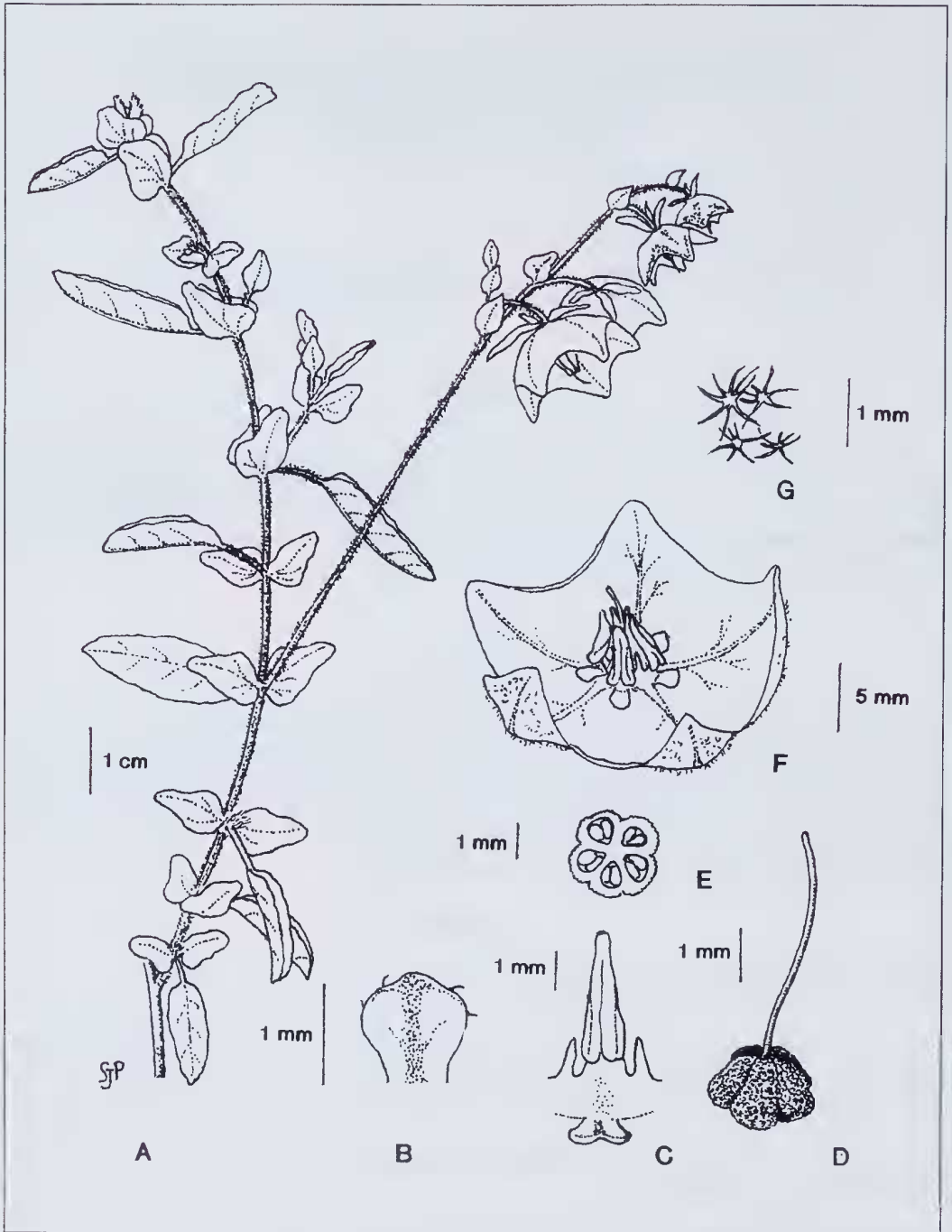


Figure 1. *Thomasia glabripetala*. A - habit. B - petal. C - stamen, with two staminodes on section of staminal cup, and petal at base. D - ovary and style. E - cross-section of ovary. F - flower. G - stellate hairs from leaf. Drawn from the holotype.

stellate hairs which are pale adaxially and rusty brown abaxially, particularly on young leaves. *Inflorescence* simple, axillary, racemose, 4-7-flowered, 4.5-9 mm long including the densely brown, stellate hairy peduncle. *Bracteoles* 3, subtending the calyx, elliptic, stellate hairy on both surfaces, 6-16 mm long. *Calyx* purplish-pink, shallowly cupular, 9-17 mm long, with conspicuous stellate hairs abaxially, and scattered, fine stellate hairs adaxially, divided for half or less than half its length, *lobes* 5, 4-8 mm long, obtuse. *Petals* 5, broadly spatulate, with rounded or rarely indented apex, dark purple with glabrous margins, or with a few white marginal hairs, 0.5-2.5 mm long, appressed against calyx. *Stamens* 5, dark purple, 4-5.5 mm long, filaments basally connate forming a cup half as long as or equal in length to the ovary; anthers 3-4.5 mm long. *Staminodes* 0.25-1.5 mm long, triangular, pale in colour, green when fresh. *Ovary* 4-5 celled, 1-1.5 mm long, papillose. *Ovules* 8-9 per locule. *Style* 3-6 mm long, glabrous, exerted beyond the stamens. *Fruit* a loculicidal capsule, crustaceous, 4-5-celled, c. 4 mm long. *Seed* not seen.

Flowering period. September to October.

Distribution. Endemic to the Avon Botanical District of the South-West Botanical Province of Western Australia, occurring over a restricted geographical range of 10 km, in remnants of natural vegetation to the east of York.

Habitat. The species occurs in the open scrub layer of *Eucalyptus wandoo* woodland on deep yellow sand over gravel.

Conservation status. A rare species known from five localities over a restricted range. The species was declared as Rare Flora under provisions of the Wildlife Conservation Act of Western Australia in 1987 (as *Thomasia* sp. (York) A.S. George 8075). It has the category 2VC of Briggs & Leigh (1988) where it is listed as *Thomasia* sp. 1 (York).

Other specimens examined. WESTERN AUSTRALIA: September 1966, A.S. George 8075 (PERTH); June 1984, S.J. Patrick 106 (BRI, PERTH); September 1985, S.J. Patrick 173, 174, 175 (PERTH); September 1985, S.J. Patrick 176 (PERTH); September 1985, S.J. Patrick 179, 180 (PERTH); September 1985, S.J. Patrick 181 (PERTH); September 1985, S.J. Patrick 183, 184 (PERTH); York, 18 December 1986, T. Walley s.n. (PERTH) [precise localities withheld].

Etymology. The specific epithet draws attention to the glabrous petals of this species which help to distinguish it from *Thomasia montana*.

Discussion. This species is apparently most closely related to *T. montana* Steudel. The latter can be distinguished by the calyx, which is shorter, 6-10 mm long, more deeply cupular and which is divided for never less than half its length into acute lobes. The petals are usually shorter, 1-1.5 mm long, reniform in shape and the margins are densely hairy with the hairs sometimes extending onto the adaxial petal surface. Further, in fresh material the petals are held in a semi-erect position. The staminodes are longer, 2-2.5 mm long, and the hypogynous staminal cup is as long as the ovary, which is 3- to 4-celled.

Acknowledgements

I am grateful to Diana Corbyn for writing the Latin diagnosis.

References

- Briggs, J.D. & Leigh, J.H. (1988). "Rare or Threatened Australian Plants." Revised edn. (Australian National Parks & Wildlife Service: Canberra.)
- Hopper, S.D., van Leeuwen, S., Brown, A.P. & Patrick, S.J. (1990). "Western Australia's Endangered Flora." (Department of Conservation & Land Management: Perth.)
- Patrick, S.J. (1984). "Rare and Geographically Restricted Plants of Western Australia No.26." Unpublished Report. (Department of Fisheries & Wildlife: Perth.)